CENTRAL VALLEY CLEAN WATER ASSOCIATION
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Central Valley Clean Water Association

Representing Over Forty Wastewater Agencies

June 26, 2006

Ms. Pamela Creedon, Executive Officer
Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive #200
Rancho Cordova, California 95670

Subject: Comments on Tentative Order for City of Tracy Wastewater Treatment Plant

Dear Ms. Creedon:

The Central Valley Clean Water Association (CVCWA) has reviewed the revised Tentative Order (TO) for the City of Tracy's Wastewater Treatment Plant. We appreciate the Regional Water Quality Control Board's (Regional Water Board) efforts to revise the TO based on comments and concerns received on the TO issued late last year. Based on our review, we are pleased to see that the Regional Board responded to one of the major concerns raised by CVCWA. However, there are a few additional issues of concern for which CVCWA must comment on behalf of its membership.

First of all, CVCWA's January 2006 comments focused on the Regional Board staff's continued practice of using the *Water Quality for Agriculture Food and Agriculture Organization of the United Nations – Irrigation and Drainage paper No. 29, Rev.* 1 ("UN Paper") to establish salinity based effluent limits in POTW wastewater permits. CVCWA was pleased to see that the Regional Board staff is now considering a different approach for establishing appropriate salinity based limits to protect agricultural beneficial uses in wastewater permits. We support the revisions to the TO that remove final effluent limits for electrical conductivity and instead require the City to conduct several different studies to determine the appropriate EC levels for the protection of agriculture near the City's point of discharge. On a related note, CVCWA supports the Regional Boards approach for the development of a salinity task force and looks forward to being an active participant to help find reasonable and long-term solutions to the Central Valley's salinity issues.

Second, CVCWA is concerned with the proposed chlorine residual effluent limit as it is coupled with continuous monitoring. CVCWA is very concerned with the application of these effluent limits when continuous monitoring of the effluent is required. CVCWA and other POTWs recently provided testimony to the State Water Resources Control Board (State Water Board) on the infeasibility of continuous monitoring

with these recommended criteria. Evidence was provided by the California Association of Sanitation Agencies that shows existing equipment can not comply with the proposed rules contained in the State Water Board's proposed criteria. Based on this evidence and other testimony, the State Water Board directed staff to prepare a complete written response and requested that the public, including POTWs, propose the issues for discussion in a stakeholder group. Thus, the State Water Board is currently reserving judgment on this proposed rule in order to determine if current issues can be resolved. In light of the State Board's current position, CVCWA recommends that the Regional Water Board refrain from adopting chlorine residual effluent limits with continuous monitoring requirements at this time.

Third, the TO contains effluent limits for aluminum based on the U.S. EPA's National Recommended Ambient Water Quality Criteria for the protection of freshwater aquatic life. The U.S. EPA's criteria include an acute value of 750 µg/L, and a chronic value of 87 µg/L. Of primary concern is the application of the chronic criteria of 87 ug/L in light of U.S. EPA's qualifications for this criterion. The U.S. EPA guidance contains a footnote to the chronic criterion that should be considered and applied on a case-by-case basis before an effluent limit is adopted. The footnotes states:

> L. There are three major reasons why the use of Water Effect Ratios might be appropriate. (1) The value of 87 ug/L is based on a toxicity test with the striped bass in water with pH – 6.5-6.6 and hardness <10 mg/L. Data in "Aluminum Water-Effect Ratio for the 3M Plant Effluent Discharge, Middleway, West Virginia" (May 1994) indicate that aluminum is substantially less toxic at higher pH and hardness, but the effects of pH and hardness, are not well quantified at this time. (2) In tests with the brook trout at low pH and hardness, effects increased with increasing concentrations of total aluminum even though the concentration of dissolved aluminum was constant, indicating that total recoverable is more appropriate measurement than dissolved, at least when particulate aluminum is primarily aluminum hydroxide particles. In surface waters, however, the total recoverable procedure might measure aluminum associated with clay particles, which might be less toxic than aluminum associated with aluminum hydroxide. (3) EPA is aware of field data indicating that many high quality waters in the U.S. contain more than 87 µg aluminum/L, when either total recoverable or dissolved is measured.

As the footnote indicates, the development of the chronic criterion was based on specific receiving water conditions where there is low pH (below 6.5) and low hardness levels (below 50 mg/l as CaCO3). Such conditions are not generally applicable to Central Valley waterways. As a result of the higher hardness and pH values traditional found in Central Valley as compared to the water in which the criterion was developed, a water effects ratio might be appropriate to better reflect the actual toxicity of aluminum to aquatic organisms.

When applying the U.S. EPA's recommended chronic criterion for aluminum, the Regional Board should consider the information contained in the footnote to the chronic criterion. In fact, a recent court decision removed the City of Woodland's chronic effluent limit based on the 87 µg/L chronic criterion (the City of Woodland's limit was actually 40 µg/L due to the calculation used for establishing the effluent limit) because the Regional Board did not consider the specific conditions of the Bypass. Thus, CVCWA recommends that the Regional Board revise the proposed average monthly effluent limit (AMEL) until after consideration is given to site specific factors such as pH and hardness of the receiving water.

Finally, CVCWA is concerned with the Regional Board's proposed approach with regards to establishing an effluent limitation for copper. In this case, the Regional Board proposes to use a combination of the California Toxics Rule criteria and a copper objective from Table III-1 in the Basin Plan. Specifically, the TO uses the CTR to establish the AMEL and the Basin Plan to establish the maximum daily effluent limitation (MDEL).The copper objective in the Basin Plan was first adopted in 1975 based on water quality criteria developed in the late 1960s. Since that time, U.S. EPA has done a significant amount of research regarding the development of appropriate criteria for metals. Much of U.S. EPA's current thinking is contained in the California Toxics Rule, which establishes toxic criteria for 126 priority toxic pollutants. Due to the recent adoption of the CTR, it should supersede the copper criteria contained in the Table 3-1 of the Basin Plan adopted in 1975. Based on these comments, we recommend that the Regional Board use only the CTR to establish copper limits for the City of Tracy's effluent.

We appreciate the opportunity to comment on the TO for the City of Tracy Wastewater Treatment Plant. If you have any questions, please do not hesitate to contact me at (530) 886-4911.

Sincerely,

Warren Tellefson
Executive Officer

cc: Steve Bayley
Melissa Thorme

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